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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/616,175

07/07/2003

Satoshi Kitamura

SIC-03-016

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29863

7590

10/04/2005

DELAND LAW OFFICE

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EXAMINER

BLOUNT, ERIC

ART UNIT

PAPER NUMBER

2636

DATE MAILED: 10/04/2005

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary	Application No.	Applicant(s)	
	10/616,175	KITAMURA ET AL.	
	Examiner	Art Unit	
	Eric M. Blount	2636	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --
Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 19 September 2005.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-4 and 6-29 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 6 and 11-29 is/are allowed.
- 6) ☒ Claim(s) 1-4 and 7-10 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 07 July 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
 2. ☐ Certified copies of the priority documents have been received in Application No. _____.
 3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application (PTO-152) |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO-1449 or PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Claim Rejections - 35 USC § 103

1. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

2. Claims 1-4 and 7-10 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tatsuhiko (JP 04368290) in view of Turner [U.S. Patent No. 6296072] and further in view of Weindorf et al [U.S. Patent No. 6563479].

As for **claim 1**, Tatsuhiko discloses a bicycle display apparatus for mounting on a bicycle. The display device is capable of displaying information to a rider. The apparatus also includes a light sensor that senses brightness and a display control element coupled to the display for controlling the display device in response to brightness in accordance with the signals from the light sensor (See abstract). Tatsuhiko does not specifically disclose a display device capable of displaying various types of information. Turner teaches a bicycle information display device that is capable of displaying various types of information (column 16, lines 13-15). It would have been obvious to one of ordinary skill in the art to combine the display taught by Turner with the apparatus taught by Tatsuhiko so that various types of information could be made available to a rider. A rider may be interested in knowing several types of information

Art Unit: 2636

such as speed, time of day, distance traveled, etc. This information might be helpful in planning a workout or a leisurely ride.

Neither Tatsuhiko nor Turner disclose a display control that selectively changes one of hue or color saturation of the backlight in accordance with the signals from a light sensor. In an analogous art, Weindorf et al disclose a display control element for use with a vehicle (column 6, lines 20-31) that changes the luminance of the backlight in response to brightness in accordance with signals from a light sensor (column 6, lines 3-41). Weindorf et al also disclose that it was well known in the art that users could adjust the operating parameters of a display based on user preferences and the environment of the display device. The operating parameters could include brightness, contrast, color, tint, etc. and they may be adjusted manually or automatically according to environmental conditions (column 1, line 50 – column 3, line 2). One of ordinary skill in the art would recognize that the various operating parameters could include color saturation and hue. It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to modify the inventions of Tatsuhiko and Turner to include the adjustment of display operating parameters according to the environmental conditions surrounding the display as suggested by Weindorf et al. The brightness surrounding the display is considered an environmental condition surrounding the display. This would have been an obvious modification because it would ensure that a display would automatically be adjusted to provide a user with an optimal viewing experience regardless of the lighting conditions or environmental factors surrounding the bicycle.

Regarding **claim 2**, Tatsuhiko does not specifically disclose a liquid crystal display unit. Weindorf et al disclose a liquid crystal display device, which includes a backlight, which is coupled to vehicles for providing users with information (column 4, lines 20-32). It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant to combine the liquid crystal display device with the teachings of Tatsuhiko and Turner because a combination would result in a display device capable of providing different luminance levels. The different luminance levels would allow a rider to clearly view the display device regardless of the ambient lighting conditions.

As for **claims 3-4**, Tatsuhiko discloses a display control element which controls the backlight to turn on and off in accordance with the signals from a light sensor (See abstract). Weindorf et al disclose a display control element, which changes the brightness of the backlight in accordance with signals returned from a light sensor. The aforementioned inventors teach all of the limitations set forth by the claims. It would have been obvious to one of ordinary skill in the art to combine the teachings of the two inventors because both apparatus function in a similar manner. The control of the display and backlight in each invention depends upon a signal received from a light sensor. It is obvious that one may want to automatically adjust the luminance of the backlight for optimal viewing regardless of the ambient lighting.

As for **claims 7 and 8**, neither Tatsuhiko nor Weindorf et al disclose a light adapted to be mounted on a bicycle. Turner discloses a bicycle that includes a liquid crystal display and a headlight (column 16, lines 10-16). Turner does not specifically

disclose a light sensor, which provides signals for controlling the headlight. However it would have been obvious to one of ordinary skill in the art to combine the headlight taught by Turner with the light sensors taught by Tatsuhiko and Weindorf et al. This would have been an obvious modification because the light sensors are used to detect ambient lighting. It is obvious that if one would need to adjust the display for viewing in a detected nighttime condition that a rider would also need to operate a headlight for viewing the area in the path of a vehicle. This feature would provide more safety for the riders as well as motorist sharing the road. Further, in the Background of the Invention applicant admits that headlight control systems were known in the art at the time of the invention by the applicant.

Regarding **claims 9 and 10**, Turner discloses an apparatus with a current generator for supplying electric power to the display (column 6, lines 20-52 and Figure 1B). The current generator taught by Turner is a motor. The motor is affixed to the frame of the bicycle. It would have been obvious to one of ordinary skill in the art at the time of the invention by the applicant that the motor could be mounted at any convenient location on the bicycle.

Allowable Subject Matter

3. Claims **6 and 11-29** are allowed. The following is a statement of reasons for the indication of allowable subject matter:

Regarding **claim 6**, the prior art of record fails to describe or suggest a bicycle display device wherein a display control element controls the type of information displayed to a rider based upon signals received from a light sensor.

As for **claims 11-29**, the prior art of record fails to sufficiently describe or suggest an apparatus for shifting the gears of a bicycle wherein a gearshift control element is coupled to a running condition detector and a light sensor, and the bicycle transmission is controlled in accordance with the signals from the light sensor.

Conclusion

4. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).


A shortened statutory period for reply to this final action is set to expire **THREE MONTHS** from the mailing date of this action. In the event a first reply is filed within **TWO MONTHS** of the mailing date of this final action and the advisory action is not mailed until after the end of the **THREE-MONTH** shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than **SIX MONTHS** from the mailing date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Eric M. Blount whose telephone number is (571) 272-2973. The examiner can normally be reached on 8:00 am - 4:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Jeffrey Hofsass can be reached on (571) 272-2981. The fax phone number for the organization where this application or proceeding is assigned is 703-872-9306.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).

Eric M. Blount
Examiner
Art Unit 2636



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